

**UNITED STATES PATENT AND TRADEMARK OFFICE**

Re: Application of:	KUSTAA, Nyholm
Serial No.:	Not yet known
Filed:	Herewith
For:	DATA ARRANGEMENT AND METHOD FOR DENTAL-CARE QUALITY ASSURANCE

**PRELIMINARY AMENDMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

September 29, 2006

Sir:

Prior to examination and calculation of the filing fee, please amend the above-identified application as follows:

**Amendments to the Claims** are reflected in the listing of claims which begins on page 2 of this paper.

**Remarks** begin on page 11 of this paper.

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in this application.

1. (Currently Amended) Data arrangement for dental-care environment, which comprises at least one dental-care-related device (U, T) and a data system (S), ~~e-h-a-r-a-e-t-e-r-i-s-e-d-i-n-t-h-a-t w~~herein a data transmission communication has been arranged between the dental-care-related device (U, T) and the data system (S); and the dental-care-related device (U, T) comprises means for identifying a predetermined event, means for transmitting information related to said event to the data system (S) as a response to identifying the predetermined event, and means for storing said information in the data system (S) item-specifically.

2. (Currently Amended) Arrangement according to claim 1, ~~e-h-a-r-a-e-t-e-r-i-s-e-d-i-n-t-h-a-t w~~herein the predetermined event is a treatment event the target of which being a patient; and the means for storing have been arranged to store information related to the event patient-specifically.

3. (Currently Amended) Arrangement according to ~~claims 1 or 2,~~ claim 1,  
~~e-h-a-r-a-c-t-e-r-i-s-e-d-i-n-t-h-a-t~~ wherein the predetermined event is a treatment event, the target of  
which being certain tooth and/or certain tooth surface of a patient.

4. (Currently Amended) Arrangement according to ~~claim 1, 2, or 3,~~  
~~e-h-a-r-a-c-t-e-r-i-s-e-d-i-n-t-h-a-t~~ wherein  
the predetermined event is related to dental-care instruments (X); and  
the means for storing have been arranged to store said information instrument-specifically.

5. (Currently Amended) Arrangement according to ~~any one of claims 1-4,~~  
~~e-h-a-r-a-c-t-e-r-i-s-e-d-i-n-t-h-a-t~~ claim 1, wherein  
the predetermined event is related to dental-care materials (Y) and/or their packages; and  
the means for storing have been arranged to store said information material-specifically.

6. (Currently Amended) Arrangement according to ~~any one of claims 1-5,~~  
~~e-h-a-r-a-c-t-e-r-i-s-e-d-i-n-t-h-a-t~~ claim 1, wherein the dental-care-related device (U, T) comprises  
means for receiving information related to a predetermined event.

7. (Currently Amended) Arrangement according to ~~any one of claims 1-6,~~  
~~e-h-a-r-a-c-t-e-r-i-s-e-d-i-n-t-h-a-t~~ claim 1, wherein the data system (S) is configured for  
identifying an unsterilised, unsuitable for the treatment event in question or otherwise unfit  
instrument (X); and

as a response to said identification, indicating before use of the instrument that it is not suitable for use.

8. (Currently Amended) Arrangement according to ~~any one of claims 1-7,~~  
~~e-h-a-r-a-c-t-e-r-i-s-e-d-i-n-t-h-a-t~~ claim 1, wherein the dental-care-related device is a dental unit (U)  
and/or a sterilisation device (T) of dental-care instruments.

9. (Currently Amended) Arrangement according to ~~any one of claims 1-8,~~  
~~e-h-a-r-a-c-t-e-r-i-s-e-d-i-n-t-h-a-t~~ claim 1, wherein the information related to the predetermined event  
comprises at least one of the following data: data of the type of dental-care instrument (X),  
identification data of the dental-care instrument (X), maintenance status data of the dental-care  
instrument (X), sterilisation status data of the dental-care instrument (X), point of time of  
sterilisation of the dental-care instrument (X), data of connecting the dental-care instrument (X)  
to the dental unit (U), data of taking the dental-care instrument (X) to use in connection with a  
treatment event, data of the point of time the dental-care instrument (X) was taken to use, data of  
operation parameter values of the dental-care instrument (X) during the dental treatment event  
comprising data of operation time, rotation speed and/or power used, data of disconnecting the  
dental-care instrument (X) from the dental unit (U), data of disconnection time of the dental-care  
instrument (X) from the dental unit (U), data of starting and ending the sterilisation treatment of  
the dental-care instrument (X), data of the starting and ending times of the sterilisation treatment  
of the dental-care instrument (X), data of material (Y) to be used in the treatment, identification  
data of the package of material (Y), data of the point of time of arrival of the material package

(Y) to the clinic, identification data of the manufacturing lot of the material package (Y), data of used-by date of the material package (Y), data of opening the material package (Y), data of the point of time of opening the material package (Y), data of the point of time of use of material (Y), data of the amount of material (Y) used, data of the treatment plan of the patient, data of performing a certain treatment procedure, data of the point of time of performance of a certain treatment procedure.

10. (Currently Amended) Arrangement according to ~~any one of claims 1-9,~~  
~~e-h-a-r-a-c-t-e-r-i-s-e-d-i-n-t-h-a-t~~ claim 1, wherein the means for identifying the predetermined event  
comprise an electronic reader device.

11. (Currently Amended) Arrangement according to claim 10, ~~e-h-a-r-a-c-t-e-r-i-s-e-d-~~  
~~i-n-t-h-a-t~~ wherein the electronic reader device is a radio frequency tag (RFT) reader.

12. (Currently Amended) Arrangement according to claim 10, ~~e-h-a-r-a-c-t-e-r-i-s-e-d-~~  
~~i-n-t-h-a-t~~ wherein the electronic reader device is a barcode reader.

13. (Currently Amended) Arrangement according to ~~any one of preceding claims 1-~~  
~~12, e-h-a-r-a-c-t-e-r-i-s-e-d-i-n-t-h-a-t~~ claim 1, wherein  
the data system (S) comprising also a user interface and display means connected with it; and  
the data system (S) is configured for transmitting to the display means information stored in the  
data system (S) and/or messages based on said information.

14. (Currently Amended) Arrangement according to ~~any one of preceding claims 1-13, characterised in that~~ claim 1, wherein  
the data system is configured for transmitting to the dental-care-related device (U, T) control data relating to the treatment plan and/or instruments; and  
the dental-care-related device (U, T) has been arranged to be controlled according to said control data as a response to receiving control data.

15. (Currently Amended) Method for maintaining an electronic dental-care register for a dental-care environment in a data arrangement, the dental-care environment comprising at least one dental-care-related device (U, T) and a data system (S), ~~characterised in that~~ wherein a data transmission communication is formed between the dental-care-related device (U, T) and the data system (S);  
a predetermined event is identified (2-1, 3-1, 4-2, 4-5, 4-9) in the dental-care-related device (U, T);  
information related to the identified event is sent (2-2, 3-5, 4-3, 4-6, 4-10) from the dental-care-related device (U, T) to the data system (S);  
said information is received (2-3, 3-6, 4-4, 4-7, 4-11) in the data system (S); and  
said information is stored (2-3, 3-6, 4-4, 4-7, 4-11) in the data system (S) item-specifically.

16. (Currently Amended) Method according to claim 15, ~~characterised in that~~ wherein  
the predetermined event is targeted to a patient, a patient's tooth and/or its certain surface; and

the information related to the event is stored patient-specifically.

17. (Currently Amended) Method according to claim 15 ~~or 16, characterised~~  
~~in that wherein~~

the predetermined event is addressed to a treatment instrument (X); and

the information related to the event is stored instrument-specifically.

18. (Currently Amended) Method according to claim 15, ~~16 or 17,~~  
~~characterised in that wherein~~

the predetermined event is addressed to dental-care material (Y) and/or material packages; and

the information related to the event is stored material-specifically.

19. (Currently Amended) Method according to ~~any one of preceding claims 15-18,~~  
~~characterised in that claim 15, wherein~~

an individual instrument is identified;

identification data is compared with the treatment plan of the patient who is the object of the

treatment procedure and/or with the status data of the individual instrument in question; it is

detected if instrument (X) is unsterilised or does not correspond the treatment plan; and

the said detection is expressed (5-6) as a response to detecting an unsterilised instrument or an

instrument not corresponding the treatment plan.

20. (Currently Amended) Method according to ~~any one of claims 15-19,~~  
~~e-h-a-r-a-c-t-e-r-i-s-e-d-i-n-t-h-a-t c-l-a-i-m 15, w-h-e-r-e-i-n~~ information related to the predetermined event is  
stored in the patient database and/or stock control database of the dental clinic data system (S).

21. (Currently Amended) Method according to ~~any one of preceding claims 15-20,~~  
~~e-h-a-r-a-c-t-e-r-i-s-e-d-i-n-t-h-a-t c-l-a-i-m 15, w-h-e-r-e-i-n~~  
taking an instrument to use is identified as a predetermined event;  
as a response to identifying taking the instrument in use, data of taking the instrument to use is  
transmitted and stored (5-2) in the data system instrument-specifically and patient-specifically,  
taking material in use is identified as a predetermined event;  
as a response to identifying taking the material in use, data of taking the material to use is  
transmitted and stored (5-18) in the data system material-specifically and patient-specifically,  
a performed dental procedure is identified as a predetermined event; and  
as a response to identifying the performed dental procedure, data of the performed dental  
procedure is transmitted and stored (5-15, 5-20) in the data system patient-specifically.

22. (Currently Amended) Method according to ~~any one of preceding claims 15-21,~~  
~~e-h-a-r-a-c-t-e-r-i-s-e-d-i-n-t-h-a-t c-l-a-i-m 15, w-h-e-r-e-i-n~~  
instrument sterilisation data is maintained instrument-specifically in the data system;  
instrument sterilisation data is checked (5-4) before taking an instrument to use;  
data of patient treatment plan is maintained in the data system;  
the treatment plan data of a patient is verified before commencing treatment procedures;



material data is maintained in the data system;

material data is checked before taking material to use.

23. (Currently Amended) Dental-care-related device for performing dental-care events in a dental-care environment, ~~characterised in that~~ wherein it comprises means for forming a data transmission communication with a data system (S) for the dental-care environment;  
means for identifying a predetermined event; and  
means for transmitting information related to the identified event to the data system (S).

24. (Currently Amended) Dental-care-related device according to claim 23, ~~characterised in that~~ wherein it is a dental unit (U).

25. (Currently Amended) Software product in a data arrangement for dental-care environment, the dental-care environment comprising at least one device (U, T) related to dental treatment and a data system (S), which software product comprises a program stored on program storage means and being readable by a computer, ~~characterised in that~~ wherein it comprises  
a first routine by which a data transmission communication between the dental-care-related device (U, T) and the data system (S) is formed;  
a second routine by which a predetermined event is identified in the dental-care-related device (U, T); and

a third routine by which information related to the identified event is transmitted from the dental-care-related device (U, T) to the data system (S).

26. (Currently Amended) Software product according to claim 25,  
~~e-h-a-r-a-c-t-e-r-i-s-e-d-i-n-t-h-a-t~~ wherein said program comprises a routine for running a method  
according to ~~any one of claims 15-21~~ claim 15.

27. (Currently Amended) Software product in a data arrangement for dental-care environment, the dental-care environment comprising at least one device (U, T) related to dental treatment and a data system (S), which software product comprises a program stored on program storage means and being readable by a computer, ~~e-h-a-r-a-c-t-e-r-i-s-e-d-i-n-t-h-a-t~~ wherein it comprises  
a first routine by which information related to a predetermined event is received in the data system from the dental-care-related device (U, T); and  
a second routine by which said information is stored in the data system (S) so that it may be linked to the object of the event.

28. (Currently Amended) Software product according to claim 27,  
~~e-h-a-r-a-c-t-e-r-i-s-e-d-i-n-t-h-a-t~~ wherein said program comprises a routine for running a method  
according to ~~any one of claims 15-21~~ claim 15.


**REMARKS**

Applicant respectfully requests that the above amendments be entered for purposes of the present application. Claims 1-28 are pending and have been amended herein. It is submitted that no new matter has been added.

This Preliminary Amendment is believed to be timely filed. If a petition for extension of time and/or any other fees are required, the U.S. Patent and Trademark Office is specifically authorized to charge such fee to Deposit Account No. 23-2820 in the name of Wolf, Block, Schorr & Solis-Cohen LLP. An early and favorable action on the merits is respectfully requested.

Respectfully submitted,

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